

ENVIRONMENTAL ASSESSMENT and FINDING OF NO SIGNIFICANT IMPACT

Collins and Aikman Pump Station and Force Main Replacement Town of Norwood Stanly County, North Carolina TITLE OF THE PROPOSED ACTION: Collins and Aikman Pump Station and Force Main Replacement, Town of Norwood, Stanly County, North Carolina.

AFFECTED JURISDICTION: State of North Carolina, Stanly County

PREPARER: U.S. Army Corps of Engineers, PO Box 1890, Wilmington, North Carolina 28402-1890

DOCUMENT DESIGNATION: Environmental Assessment and Finding of No Significant Impact

ABSTRACT: The U. S. Army Corps of Engineers, Wilmington District proposes to renovate a pump station and replace a force main at Norwood, North Carolina. The current pump station is inadequate to meet the wastewater needs of the Town of Norwood and outlying facilities areas that need to be connected to the system. particularly the Aquadale Elementary School. The action is being accomplished under the authority of Section 219 of the Water Resources Development Act of 1992. Environmental Infrastructure, as amended by Section 504 of the Water Resources Act of 1996, Section 502 of the Water Resources Act of 1999, and Section 108 of the Departments of Labor, Health And Human Services, and Education, and Related Agencies Appropriations Act of 2001. The proposed action would include renovation and upgrade of the existing Collins and Aikman (C&A) pump station, installation of approximately 4,000 feet of 8-inch force main using a route following the existing 4-inch force main route along U.S. Highway 52 to Central Avenue, along Central Avenue to Railroad Street, and thence to tie-in to an existing 10-inch gravity line. The existing 4-inch force main would be abandoned in place when the upgraded pump station and force main are brought on-line. Construction of the force main would be by the open trench method with appropriate revegetation or resurfacing of roadway crossings. Alternatives considered included:

- 1) Siting a new pump station to the west of Cedar Creek with force main replacement;
- 2) Siting a new pump station to the north of the existing site with force main replacement; and 3) the no action alternative. The selected alternative was the only alternative that is technically and economically feasible, as well as environmentally acceptable. The proposed pump station and force main replacement project will correct deficiencies in the wastewater handling of the Aquadale Elementary School and other facilities near Norwood. This action would not significantly adversely affect the quality of the human environment and therefore would not be the subject of an environmental impact statement.

ENVIRONMENTAL ASSESSMENT AND

FINDING OF NO SIGNIFICANT IMPACT COLLINS AND AIKMAN PUMP STATION AND FORCE MAIN REPLACEMENT TOWN OF NORWOOD STANLY COUNTY, NORTH CAROLINA

JULY 2004

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1.00 INTRODUCTION

1.1 Name of Action and Authority

This Environmental Assessment (EA) addresses impacts associated with a proposed pump station renovation and force main replacement in Norwood, Stanly County, North Carolina (Figures 1 and 2). The proposed action is being considered under the authority of Section 219 of the Water Resources Development Act of 1992, Environmental Infrastructure, as amended by Section 504 of the Water Resources Act of 1996, Section 502 of the Water Resources Act of 1999, and Section 108 of the Departments of Labor, Health And Human Services, and Education, and Related Agencies Appropriations Act of 2001. Section 219 authorizes the Secretary of the Army to provide assistance to non-Federal interests for carrying out water-related environmental infrastructure and resource protection and development projects including wastewater treatment and related facilities and water supply, storage, treatment, and distribution facilities.

1.2 Background

The Collins and Aikman (C&A) wastewater pump station was constructed around 1950 and has since served as the primary pump station within the Norwood wastewater collection system. Flow to the C&A pump station currently consists of nearly 300 single-family homes, South Stanly Middle School and South Stanly High School, and several commercial and industrial users.

There are several proposed flow additions to the C&A pump station, including Aquadale Elementary School. Based on current station pumping capacity, the current North Carolina Administrative Code for Wastewater, Section 15A-INCAC-2H-.0200-Waste Not Discharged to Surface Water, prevents any additional wastewater flow to the C&A pump station. Due to progressive incremental flow additions to the C&A pump station and the equipment's condition, the C&A pump station has been categorized as an Immediate Capital Improvement project by the Town of Norwood.

This project is critical for eliminating a wastewater deficiency at the Aquadale Elementary School. A Preliminary Engineering Report (PER) for Wastewater Facilities, Millingport, Ridgecrest, Aquadale, and Endy Schools dated March 1999, by McKim &

Creed, P.A., of Charlotte, North Carolina, found that these four elementary schools in the Stanly County school system have serious water and wastewater deficiencies. The PER recommended connecting the Aquadale Elementary School to the Norwood, North Carolina wastewater collection system by installing a 20,000-foot six-inch force main. Stanly County has received a grant offer from the North Carolina Department of Environment and Natural Resources (NCDENR) for the force main installation. However, final design of the force main and construction are delayed until Norwood can accept the additional wastewater and as discussed above, the existing Norwood wastewater infrastructure system, composed of the C&A pump station and associated force main, is currently not sized to handle the additional load from the school or for current or expected inputs to the wastewater system due to growth and connection of additional facilities.

1.3 Description of the Project Area and Proposed Action

The project area, Norwood, North Carolina, is in Stanly County approximately 40 miles east of Charlotte. Figures 1 and 2 show the locations of the county and the Town of Norwood. The project area includes rights-of-way under the jurisdiction of the Town of Norwood as well as North Carolina Department of Transportation (NCDOT) right-of-way on the north side of U.S. Highway 52.

The proposed action consists of upgrade/modernization of the existing pump station, and a 4,000-foot 8-inch force main. The proposed force main project would begin on the north side of U.S. Highway 52 near Cedar Creek, extend southeast toward Central Avenue, follow Central Avenue to Railroad Street and then continue southward, paralleling the road for approximately 1,500 feet until intersecting with an existing 10-inch gravity line at Whitley Street (Figures 3 and 5). The project traverses rights-of-way on Town of Norwood property and on NCDOT right-of-way on the north side of U.S. Highway 52. The Central Avenue, Railroad, and Whitley Streets rights-of-way are under the jurisdiction of the Town of Norwood. Figures 3a and 3b are photographs of the project areas.

Specifically, the proposed action consists of the following:

- 1. Expansion and upgrade of the existing C&A pump station to include a diesel fueled emergency generator. The renovated pump station and generator would be housed in a brick or cinder block 15' x 15' building and a properly sized diesel fuel tank for the generator would be located outside of the pump station building, about 5 feet from the east wall that would be screened from view and secured. The existing pump station building is 10' x 10'. A pump station malfunction warning system, consisting of an audible alarm and strobe light, would be located adjacent to the pump station. Improvement of the pump station equipment would allow for a design flow of 750,000 gallons per day (GPD).
- 2. Installation of approximately 4,000 linear feet of 8-inch force main alongside an existing 4-inch force main that would be abandoned in place. The proposed 8-inch

force main would tie-in to an existing 10-inch gravity outfall. From the tie-in point at the C&A pump station, the proposed 8-inch force main replacement would be installed by the conventional open trench method. Conventional pipe installation would consist of excavating a 3.5-foot wide by 5.0-foot deep trench to provide 3 feet of minimum cover for the entire length of the force main replacement project. For the majority of the force main replacement, the pipe would be located under the roadway pavement or within approximately 5 feet from the edge of pavement with several deviations due to obstructions or conflicts with other utilities.

Implementation of the proposed action would require a wastewater collection permit from the North Carolina Division of Water Quality. All appropriate wastewater permits and approved soil erosion/sedimentation control plans would be in place prior to project implementation.

2.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

Currently, the C&A pump station does not have adequate capacity for expected inputs to the wastewater system due to growth and connection of additional facilities such as Aquadale Elementary School. The Town of Norwood has been denied a wastewater permit by the North Carolina Department of Environment and Natural Resources, Division of Water Quality due to the age and condition of the C&A pump station. The purpose of the Proposed Action is to ensure the safe and efficient transfer of wastewater through the C&A pump station and transfer to the Town of Norwood's wastewater treatment plant while allowing for expected growth and increased inputs to the wastewater system.

3.0 ALTERNATIVES

This section presents the alternatives and environmental impacts associated with each alternative. The evaluation of environmental impacts is based on information contained in Section 4.0, Affected Environment and Impacts. Table 3-1 provides a summary of environmental impacts for each alternative.

Three alternate sites for the placement of the pump station were investigated (Figure 4) as well as two alternate routes for the force main replacement (Figure 5). The alternatives are discussed below by pump station site with the force main routes as a sub category for each alternative. The No Action Alternative was also evaluated.

3.1 Proposed Action – Pump Station Expansion at Existing C&A Site This alternative would in-place upgrade and expand the existing C&A pump station on property owned by the Town of Norwood as described in Section 1.3. Due to the need to maintain service, the replacement and upgrade activities would be completed one pump at a time. The renovated C&A station would provide the Town of Norwood with an adequate wastewater transfer capacity to operate safely and efficiently, while allowing for expected growth and increased inputs to the wastewater system.

Approximately 4,000 linear feet of 8-inch force main would be replaced. The new force main would be installed alongside an existing 4-inch force main to be abandoned in place. The 8-inch force main would tie-in to an existing 10-inch gravity outfall. The proposed route for this alternative follows U.S. Highway 52 to Central Avenue and then to Railroad Street to tie-in to the existing 10-inch gravity line at Whitley Street (Figure 5). This alternative was selected by the Town of Norwood as it impacts a shorter distance along U.S. Highway 52 than the Pine Street to Railroad Street alternative.

Table 3-1 Summary of Environmental Consequences by Alternative

ACTION		ENVIRONMENTAL CONSEQUENCES
No Action Alterna	ative	No adverse impacts to physical environment or natural resources. Impacts associated with existing wastewater deficiencies continue.
Proposed Action: Renovation of Existing C&A Pump Station, 8-inch Force Main Route Along U.S. Highway 52, Central Ave. and Railroad St.		No significant adverse impacts to physical environment or natural resources. Temporary construction related disturbances to traffic and vegetation along force main route.
Force Main Route Alternatives:	8-inch Force Main Route Along U.S. Highway 52, Central Ave. and Railroad St.	No impacts to wetlands or waters. Removal of existing vegetation (mainly urban grasses) – replanting after construction. Temporary disturbances to traffic during construction. No impacts to 100-year floodplain.
	8-inch Force Main Route Along U.S. Highway 52 and Pine St.	No impacts to wetlands or waters. Removal of existing vegetation (mainly urban grasses) – replanting after construction. Temporary disturbances to traffic during construction. Impacts a longer distance along U.S. Highway 52 than Central Ave – Railroad St. Alternative. No impacts to 100-year floodplain.
Pump Station Location Alternatives:	Adjacent to Dixie Youth Ball Fields	Requires land purchase or easement – commitment of lands not previously used for this purpose. No impacts to wetlands or waters. No impacts to 100-year floodplain. Positive environmental effect from safe and efficient handling of wastewater.
	West of Cedar Creek	Requires relocation of existing gravity lines and new force main under Cedar Creek. Requires land purchase or easement – commitment of lands not previously used for this purpose. Positive environmental effect from safe and efficient handling of wastewater. Potential impacts to wetlands (Cedar Creek system), Potential impacts to 100-year floodplain.
	Existing Collins and Aikman Pump Station	Minor expansion of existing pump station footprint. No impacts to wetlands or waters. No impacts to 100-year floodplain. Positive environmental effects from safe and efficient handling of wastewater.

3.2 Pump Station Construction to West of Cedar Creek

This alternative involves the construction of a new pump station on the west side of Cedar Creek (Figure 4). This site would require that gravity lines to the existing pump station be relocated under Cedar Creek and the new force main would have to be routed under the creek also. The Town of Norwood would be required to buy or obtain an easement from the site landowner. Also, the Cedar Creek alternative would increase the length, therefore the cost of the proposed force main replacement. Due to the expense and potential for impacts to Cedar Creek, this alternative was not considered to be feasible and was dropped from further consideration.

The preferred force main route for this alternative would be the alignment following U.S. Highway 52 to Central Avenue and then to Railroad Street to tie-in to the existing 10-inch gravity line at Whitley Street (Figure 4 and 5). This force main route alternative was selected by the City of Norwood as it impacts a shorter distance along U.S. Highway 52 than the alternative, which would travel down Pine Street to Railroad Street.

3.3 Pump Station Construction Adjacent to Norwood Dixie Youth Ball Fields

This alternative involves the construction of a new pump station adjacent to the Norwood Dixie Youth Ball Fields complex (Figure 4). This site would be problematic due to the increased activity around it from the ball fields. The Town of Norwood would be required to purchase land or an easement from Norwood Dixie Youth Baseball for this site. The expense, along with the increased potential for vandalism of the pump station makes this site unfeasible and it is therefore dropped from further consideration.

The preferred force main route for this alternative would be the alignment following U.S. Highway 52 to Central Avenue and then to Railroad Street to tie-in to the existing 10-inch gravity line at Whitley Street (Figure 4 and 5). This alternative was selected by the City of Norwood as it impacts a shorter distance along U.S. Highway 52 than the alternative, which would travel down Pine Street to Railroad Street.

3.4 No Action

The No Action Alternative would continue the status quo. The No Action Alternative would not provide adequate wastewater handling capacity for the Town of Norwood. The No Action Alternative would also not allow connection of Aquadaie Elementary School to the existing wastewater system, necessitating continued use of a septic system that is operating in excess of its National Pollutant Discharge Elimination System permit for flow. The current wastewater deficiencies would continue. The No Action Alternative would not impact natural resources (e.g., vegetation, wildlife, and wetlands), cultural resources, and the physical environment (e.g., soils and surface hydrology), since the existing conditions would be maintained.

4.0 AFFECTED ENVIRONMENT AND IMPACTS

The following sections discuss the affected environment and impacts of the Proposed Action. Direct and indirect impacts, long- and short-term effects, unavoidable effects, irreversible and irretrievable resource commitments are discussed with relation to their significance. Mitigative measures are included where applicable.

4.1 Physical Environment

4.1.1 Geology - The project area is in the Carolina Slate Belt and consists of Late Proterozoic Age deposits that are stratigraphically identified as the Flat Swamp Member and the Tillery Formation (Butler and Secor, 1991). The Flat Swamp Member is predominantly felsic volcanic material with mudflows of andesitic basalt composition. The Tillery formation is primarily laminated to thinly bedded meta-mudstone. These deposits are frequently intruded by metagabbro (hard rock formations). Should rock be encountered unexpectedly along other areas of the force main route, jack hammering would be utilized.

Blasting of rock **would not** be required for this project. All disturbed areas would be graded and revegetated or resurfaced following force main installation.

4.1.2 Topography - The project area is situated in the Piedmont physiographic province, an area characterized by rolling topography with well-rounded hills and long, low ridges. Terrain found in this area is hilly, ranging from a high elevation of approximately 420 feet above mean sea level (msl) to a low elevation of approximately 260 feet above msl.

The Proposed Action would not impact topography because no extensive cut or fill areas are required to install the proposed pump station improvements and force main.

4.1.3 Soils - The Soil Survey for Stanly County (Stephens, 1989) indicates that the project area crosses nine soil map units that are within four different soil series. Soils of the project area are described below.

<u>Urban Land (Ur)</u>- refers to soils that have been cut, filled, graded or otherwise changed to the extent that the original soil characteristics have been altered or destroyed. Over 80 percent of each mapped area is covered by buildings or pavement. The rest consists of small lawns or shrub gardens near buildings, sidewalks, and parking lots.

<u>Badin-Urban Land Complex (BbD)</u>- consists of well drained rolling to hilly soils with slopes of 8 to 25 percent. Typically, this Badin soil has a brown channery silt loam surface layer to a depth of approximately six inches. A subsoil layer consisting of brown channery silty clay loam and yellowish red silty clay occurs below the surface layer. Bedrock is found approximately 40 inches below the surface and consists of fractured slate. These soils are extremely susceptible to erosion.

Badin-Urban Land Complex (BbB)- consists of well-drained undulating soils with slopes of 2 to 8 percent. Typically, this Badin soil has a brown channery silt loam surface layer to a depth of approximately six inches. A subsoil layer consisting of brown channery silty clay loam and yellowish red silty clay occurs below the surface layer. Bedrock is found approximately 40 inches below the surface and consists of fractured slate. This soil will erode in bare and unprotected areas.

<u>Tatum-Urban Land Complex (TbD)</u>- consists of soils that are gently sloping and contain Urban Land soils with slopes of 2 to 8 percent. Typically, this Tatum soil has a brown channery silt loam surface layer to a depth of approximately 7 inches. A subsoil layer consisting of brown silty clay loam, red silty clay, and red channery silty clay loam occurs to a depth of 44 inches. Bedrock in these areas is a sandstone. This soil will erode in bare and unprotected areas.

Construction impacts to soils would result from removal of vegetation, grading and placement of the pump station, force main and associated structures. Removal of vegetation would result in temporary, short-term increases in erosion and sedimentation. A state approved sedimentation and erosion control plan would be implemented during construction to minimize soil loss and erosion. No prime or unique farmland would be impacted by the project. Following construction, all areas of ground disturbance would be revegetated or resurfaced.

4.1.4 Floodplains – Based on a review of panel 250 of the Stanly County, North Carolina and Incorporated Areas Flood Insurance Rate Map, dated September 21, 2000, the pump station is adjacent to the approximately-mapped 100-year (one-percent chance) flood plain of Cedar Creek.

Since the wastewater lines to the pump station, and the force main, would be completely underground and no exposure to the surface would occur, no damage from flood flows is anticipated. No culverts or fill material would be placed in any waters or wetlands, therefore no significant impacts to floodplains are expected as a result of this project.

4.1.5 Surface Hydrology – Cedar Creek, a tributary to Lake Tillery, is adjacent to the project area.

All construction within the project area would include the appropriate approved sedimentation and erosion control plans, and disturbed areas would be revegetated or resurfaced upon completion of construction. These measures would minimize the potential impacts of the construction. No permanent impacts to surface hydrology are expected since no fill material would be placed in any waters.

4.1.6 Water Quality - The North Carolina Department of Environment and Natural Resources (NCDENR) assigns classifications to the waters of the state (15 NCAC 2B .0315). Cedar Creek is classified as Class WS-IV. Class WS-IV waters are protected as water supplies which are generally in moderately to highly developed watersheds.

This classification is suitable for all Class C uses. Class C waters are protected for secondary recreation, fishing, aquatic life including propagation and survival, and wildlife.

Pursuant to Section 401 of the Clean Water Act of 1977, as amended, a Water Quality General Certification (GC 3374) for utility line discharges was issued on March 18, 2002. Written concurrence from the North Carolina Division of Water Quality (NCDWQ) for this GC 3374 is not required, however, NCDWQ will have the opportunity to review this EA and provide comments. All conditions of the General Certification would be followed during construction.

Due to the location of the proposed project components, there are no expected impacts to the water quality of Cedar Creek. Implementation of an approved sediment and erosion control plan, along with prompt revegetation or resurfacing of disturbed areas, will prevent impacts to Cedar Creek.

- **4.1.7** Air Quality The project is in compliance with Section 176 (c) of the Clean Air Act (CAA), as amended. For the following reasons, a conformity determination is not required:
- a. 40 CFR 93.153 (b) states: "For Federal actions not covered by paragraph (a) of this section, a conformity determination is required for each pollutant where the total of direct and indirect emissions in a nonattainment or maintenance area caused by a Federal action would equal or exceed any of the rates in paragraphs (b) (1) or (2) of this section."
- b. The direct and indirect emissions from the project fall below the prescribed <u>deminimus</u> levels (40 CFR 93.153 (c) (1)) and, therefore, no conformity determination would be required. Construction at the project site would take approximately 6 months. All construction equipment would be removed from the project site following construction completion. Although the ambient concentrations of some pollutants, including ozone and carbon monoxide, in some areas of North Carolina exceed the U.S. EPA's national standards, no areas in North Carolina are technically designated as "nonattainment" areas at this time, due to activities in the courts (Personal Communication, April 7, 2004, Mr. Michael Landis, Regional Supervisor, North Carolina Department of Environment and Natural Resources, Division of Air Quality).
- c. The project is located within the jurisdiction for air quality of the Mooresville Regional Office of the North Carolina Department of Environment and Natural Resources. The project was discussed with a representative of the Mooresville Regional Office of the Division of Air Quality on April 7, 2004. As was discussed, the only potential impact to air quality as a result of the proposed action would be increases in dust emission, however, this impact would be temporary, thus occurring only while construction is ongoing. No other impacts to air quality are expected, therefore, the project is not anticipated have any adverse effects on the air quality of the area.

No Volatile Organic Compounds (VOC's) or Nitrogen Oxides (NOX) would be produced by the proposed construction; therefore, a conformity determination would not be required.

- **4.1.8 Noise** During construction, heavy equipment would produce noticeable increased noise levels in the immediate vicinity of project activity, however, all work must comply with Occupational Safety and Health Administration (OSHA) standards for the construction industry. All noise increases resulting from **project** construction **would** be temporary and of relatively short duration. No long-term adverse noise impacts are anticipated as a result of the proposed project.
- **4.1.9 Cultural Resources** The proposed C&A pump station and force main replacement has been reviewed per provisions of Section 106 of the National Historic Preservation Act (NHPA) as codified at 36 CFR 800, *Protection of Historic Properties*. The pump station and force main routes both occur in areas that have been extensively disturbed. The proposed force main route is along an existing right-of-way that has already been impacted by highway and city street construction. Therefore, no impacts are likely to occur because of project construction.

The State Historic Preservation Office (SHPO) is reviewing this project per provisions of Section 106 of the National Historic Preservation Act, and their concurrence that there would be no impacts to cultural resources in the project area is being sought. Should unknown cultural resources be encountered during project construction, appropriate coordination with the SHPO would be initiated.

4.1.10 Hazardous Waste Sites – A Phase I Environmental Site Assessment has been completed for the proposed project area. Based on the Phase I findings, there are no properties within the project area that produce, manufacture or process hazardous materials. Neither are there properties that operate hazardous waste treatment, storage, or disposal facilities. The conclusion of the Phase I report indicated that no hazardous materials would be expected to be encountered during construction of the proposed pump station and force main replacement project, therefore, the proposed action would not impact any hazardous waste sites.

4.2 Natural Resources

4.2.1 Vegetation — Approximately 0.5 acres may be altered during the construction of the proposed 8-inch force main. However, the majority of work would take place in the existing cleared NCDOT highway and city street right-of-way. The majority of the vegetation along the right-of-ways is non-native turf grass that is frequently mown. Measures such as silt fences, grass-lined channels, check dams, inlet and outlet protection, and temporary sediment traps, would be used to minimize impacts. All disturbed areas would be seeded and grassed in accordance with an approved sedimentation and erosion control plan.

4.2.2 Wildlife - Some of the permanent resident species found in or near the project area may include species found in Table 4-1.

Table 4-1. List of Wildlife Species

Table 4 if Elect of Wildlife Openies					
White-tailed Deer	Great-Horned Owl				
Raccoon	Barred Owl				
Fox Squirrel	Wild Turkey				
Gray Squirrel	Kentucky Warbler				
Southern Flying Squirrel	Whip-poor-will				
Eastern Cottontail	Cooper's Hawk				
Hoary Bat	Red-tailed Hawk				
Beaver	Wood Duck				
Virginia Opossum	Mourning Dove				
Long-tailed Weasel	American Crow				
Red Fox	Northern Flicker				
Gray Fox	Eastern Wood-Pewee				
Blue Jay	Red-eyed Vireo				
Tufted Titmouse	White-eyed Vireo				
Carolina Chickadee	Rufous-sided Towhee				
Striped Skunk	Red-winged Blackbird				
Northern Cardinal	American Robin				
	White-tailed Deer Raccoon Fox Squirrel Gray Squirrel Southern Flying Squirrel Eastern Cottontail Hoary Bat Beaver Virginia Opossum Long-tailed Weasel Red Fox Gray Fox Blue Jay Tufted Titmouse Carolina Chickadee Striped Skunk				

As indicated previously, the majority of the proposed project construction would be in previously disturbed areas that have been graded, grassed and frequently mowed. Removal of vegetation from the force main corridor has the potential to disturb wildlife, however, direct disturbance would only occur during construction and the period of time required for the corridor to revegetate. Both the number and type of wildlife species have the potential to change as highly mobile species could migrate out of the project area to compete for food and cover elsewhere and some less mobile species may suffer direct mortality.

4.2.3 Endangered and Threatened Species - The proposed work has been reviewed for compliance with the Endangered Species Act of 1973, as amended. Table 4-2 is a list of endangered (E), threatened (T), and candidate (C) species, which may occur in the project area, obtained from the U. S. Fish and Wildlife Service (USFWS, 2003).

For the Federal listings, "endangered" is defined as a species, which is in danger of extinction throughout all or a significant portion of its range. The term "threatened" is defined as a species, which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The term "candidate" refers to species for which the U.S. Fish and Wildlife Service has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act, but for which development of a listing regulation is precluded by other higher priority listing activities.

Natural heritage resources are defined as that habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and

significant geologic formations. No natural heritage resources have been documented in the project impact area.

Table 4-2. Endangered/Threatened Species and Species of Special Concern
Potentially Present in Stanly County

Species Common Name Vertebrates	Scientific Name	Federal Status
Bald eagle Vascular Plants	Halieetus leucocephalus	Т
Georgia aster	Aster georgianus	С
Schweinitz's sunflower	Helianthus schweinitzii	E

<u>Bald Eagle</u>. There is bald eagle activity at Lake Tillery approximately 1 mile east of the project area. Although Lake Tillery has documented use by bald eagles, none were seen in the project vicinity during the site visit on April 13, 2004. The project area is a developed urban area with lots of human activity. Therefore, the bald eagle would not be affected by the project and consultation with the USFWS would not be required.

Schweinitz's sunflower. This plant grows on upland flats and gentle slopes in association with shallow, clavey soils. One of the major soil types this plant occurs in is the Iredell series, which is not found in the project area (USFWS, 1994). The plant seems to survive best in areas where some form of disturbance has provided an open Most of the plant's remaining populations are on highway rights-of-way. roadsides, or on the edges of artificially maintained clearings. The documented populations of Schweinitz's sunflower in Stanly County are located along rural roadsides in the central and eastern portions of the county, between the cities of During a site survey on April 13, 2004, no Schweinitz's Albermarle and Badin. sunflower were seen in the project area. However, it is difficult to identify the species without flowers that occur later in the growing season (September through October). No typical or potential habitat for the Schweinitz's sunflower was observed. For the majority of the force main replacement, the pipe would be located under the roadway pavement or within approximately 5 feet from the edge of pavement with several deviations due to obstructions or conflicts with other utilities and alongside of an existing 4-inch main (which will be abandoned). Therefore, the impact area has previously been disturbed by roadway, utility, and other urban excavation and construction activities. Most of the roadway right-of-way plant coverage consists of frequently mowed urban grasses. The frequent mowing greatly decreases the diversity of plant life and the potential for Schweinitz's sunflower occurrence. No impacts to Schweinitz's sunflower are expected as a result of the proposed project.

Georgia aster. The existing populations of Georgia aster are found adjacent to roads, utility rights-of-way and other openings where management practices mimic natural disturbance regimes. Optimal sites are characterized by abundant sunlight and little competition in the herbaceous layer (USFWS, 2002). Georgia aster was not observed within the project area during a survey of the force main alignment that was conducted on April 13, 2004. As stated previously, a large percentage of the proposed project impact area is grassed and frequently mowed. This frequent mowing greatly decreases

the diversity of plant life and thus the potential for Georgia aster or other rare plants. No impacts to Georgia aster are expected as a result of the proposed project.

Based on review of the Natural Heritage Program Database, no occurrences of state listed species are documented in the project area.

Therefore the proposed project is not expected to impact any state or federally listed threatened, endangered, or candidate species. No impacts to protected species would result from implementation of the proposed action. By letter dated May 7,2004, the USFWS, Asheville Field Office, concurred with the determination of no affect on endangered and threatened species and stated that the requirements under Section 7 of the Endangered Species Act of 1973.

4.2.4 Wetlands - The project would be located on previously disturbed uplands within the NCDOT and Town of Norwood rights-of-way parallel to U.S. Highway 52, Central Avenue, Railroad Street, and Whitley Street. The only wetlands that have the potential to be impacted as a result of the proposed construction are those associated with Cedar Creek adjacent to the pump station. No fill would be placed in wetlands, preconstruction grade would be restored following placement of the force main and all disturbed areas would be revegetated. Therefore, no impacts to wetlands are expected due to implementation of the proposed action.

4.3 Socioeconomic Characteristics

- **4.3.1 Land Use** The proposed project occurs in right-of-ways that are adjacent to properties that are zoned Single-family Residential (R-8), Multi-family Residential (R-10), General Business (GB), and Light Industrial (M-1) (Figure 6) (Stanly County, 2004). The proposed project would not alter current land uses within the project area.
- **4.3.2 Traffic -** During project construction, temporary lane closures along U.S. Highway 52, Central Street, and Railroad Street would be necessary. A Traffic Control Plan, developed by the construction contractor will comply with North Carolina Department of Transportation requirements. This plan would be used, as necessary, during the approximate 6-month construction period. Impacts would be temporary and traffic patterns would return to normal following project construction.
- **4.3.3 Other Socioeconomic Factors** The following factors would not be adversely affected by the Proposed Action: man-made resources, community cohesion, public facilities and services, employment, tax value, property value, community growth, regional growth, or displacement of people, and businesses or farms.

4.4 Executive Orders

Executive Order 11593 (Protection and Enhancement of the Cultural Environment) - The Proposed Action has been evaluated under Executive Order 11593, Protection and Enhancement of the Cultural Environment. As indicated in Section 4.1.9, the proposed action would not affect cultural resources.

Executive Order 11988 (Flood Plain Management) - No dredge or fill material would be placed in any waters and/or wetlands associated with the 100-year floodplain. The Proposed Action would minimize the impacts of floods on human safety, health and welfare.

Executive Order 11990 (Protection of Wetlands) - The Proposed Action has been evaluated under Executive Order 11990, Protection of Wetlands and coordinated with the Raleigh Regulatory office of the U. S. Army Corps of Engineers. All components of the proposed action occur in upland areas that have previously disturbed during development of the urban areas of Norwood. No wetlands would be adversely impacted by the Proposed Action.

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low Income Communities and Low Income Populations) - The Proposed Action would not impact minority communities or low-income populations because the proposed force main would be installed below ground and any construction impacts would be temporary.

Executive Order 13045, (Protection of Children from Environmental Health Risks) mandates Federal agencies to identify and assess environmental health and safety risks that may disproportionately affect children as a result of the implementation of Federal policies, programs, activities, and standards (63 F.R. 19883-19888). The Proposed Action would not impact schools, housing areas, or gathering places of children. Therefore, there would be no short- or long-term impacts on the health and safety of children.

4.5 Cumulative Impacts

Cumulative impacts are defined in 40 CFR 1508.7 as "impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions." The National Environmental Policy Act process requires that these connected, similar action impacts be analyzed.

Impacts to environmental resources from the Proposed Action have been evaluated in this document. The Proposed Action consists of the renovation and upgrade of the existing C&A pump station, installation of approximately 4,000 feet of 8-inch force using a route following the existing 4-inch force main route along U.S. Highway 52 to Central Avenue, along Central Avenue to Railroad Street, and thence to tie-in to an existing 10-

inch gravity line. The Proposed Action will not result in significant short term or long term environmental impacts.

A previous related project was the upgrade of the Aquadale Elementary School septic system. This system is inadequate for the current population and cannot be expanded due to state regulations. Stanly County has received a grant offer from the North Carolina Department of Environment and Natural Resources (NCDENR) for the force main installation of a 20,000-foot six-inch force main connecting the Aquadale School to the Norwood wastewater infrastructure. However, the proposed final design of the force main and construction are delayed until Norwood can accept the additional wastewater. As discussed above, the existing Norwood wastewater collection system, composed of the C&A pump station and associated force main, is currently not adequate to handle the additional load from the school or for current or expected inputs to the wastewater system due to growth and connection of additional facilities. Accordingly, connecting wastewater infrastructure projects are reasonably foreseeable.

Wastewater infrastructure limitations are likely a factor affecting future growth and development of the Norwood area. The current wastewater deficiency would be addressed by the proposed project. Accordingly, impacts attributed to potential future development in the project area may be a cumulative impact of the proposed wastewater infrastructure improvements. One limitation to the Norwood area's future growth and development would be changed, however, other growth factors may not change. Future projects would be subject to local, State and Federal environmental laws, regulations, and ordinances. With respect to growth, U.S. Census Bureau data indicates that the population of Stanly County increased 12.2 percent between 1990 and 2000. The State of North Carolina changed 21.4 percent over the same period. Population projections for the year 2020 for Stanly County by the North Carolina Office of Budget estimate similar, moderate growth. The proposed action is not expected to have significant adverse cumulative impacts.

The USFWS, Asheville Field Office, in accordance with the provisions of the Fish and Wildlife Coordination Act provided by letter dated May 17, 2004 recommendations to help minimize secondary and cumulative impacts to fish and wildlife resources. The recommendations are summarized in the following:

- 1. New residential and commercial developments that use the **proposed** sewer system should be required to implement 100-foot-wide buffers along perennial streams and 50-foot-wide buffers along intermittent streams.
- 2. Fill of 100-year floodplains for wastewater infrastructure or commercial and residential development should be strongly discouraged.
- 3. Impervious surfaces should be limited to no more than 7 percent and curb and gutters should be limited in new developments. Direct discharge of storm water into streams should be prevented. Use of grass swales in place of curb and gutter and on-site storm water management is recommended.
- 4. Stringent erosion and sediment control should be installed and maintained. Bare soil should be planted with native herbaceous vegetation.
- 5. Ultraviolet (UV) disinfection should be considered for wastewater effluents.

Implementation of the USFWS recommendations is beyond project authorities under Section 219 of the Water Resources Development Act of 1992, Environmental Infrastructure, as amended by Section 504 of the Water Resources Act of 1996, Section 502 of the Water Resources Act of 1999, and Section 108 of the Departments of Labor, Health And Human Services, and Education, and Related Agencies Appropriations Act of 2001. However, through this EA/FONSI the recommendations will be made available to the Town of Norwood for their future consideration.

4.6 Unavoidable Adverse Impacts of the Proposed Action

Minor short-term impacts such as increased dust emissions, noise levels, waste, and traffic disruption that would occur as part of construction activities are unavoidable. Land disturbing operations such as grading and clearing may increase the likelihood of erosion and siltation. These potential impacts would be minimized or avoided by use of BMPs.

4.7 Relationship Between Local Short-Term Uses of the Environment and the Enhancement of Long-Term Productivity

Short-term uses of the environment are those that occur over a **period of less** than the life of the proposed action, i.e. construction. Long-term uses include those **impacts that** would persist for a period of five years or more, or for the life of the proposed action, i.e. operation.

Activities addressed in this EA that would be categorized as short-term include the construction of all proposed facilities.

From a long-term perspective, the proposed action would provide wastewater infrastructure improvements alleviating the current wastewater deficiencies and systemic permit violations. These improvements are environmental enhancements as compared to the status quo.

4.8 Irreversible and Irretrievable Commitments of Resources

The construction of the proposed new facilities would expend fuel, materials, and labor. Operation of the new facilities would also require energy. The installation of modern equipment and more energy efficient systems in buildings may offset some of the long-term energy costs resulting from new construction.

5.0 PUBLIC AND AGENCY COORDINATION

A scoping letter describing the proposed project was mailed April 9, 2004 to interested state, federal, and local governmental agencies and elected officials for comment. Scoping comments received were considered in the preparation of the EA.

The EA was circulated on May 25, 2004 for a 30-day review and comment period to local State and Federal resource agencies and the public.

Results of Public and Agency Coordination, Comments on the EA

The following sections summarize the comments made and provide preparer responses. These comments were used in the preparation of this Finding of No Significant Impact (FONSI).

Comments on the EA were received from the following:

Federal Agencies

Department of Health and Human Services, Public Health Service

US Department of Agriculture, Natural Resources Conservation Service

US Fish and Wildlife Service, Asheville Field Office

State Agencies

N.C. Department of Administration, State Clearinghouse

N.C. Department of Cultural Resources

N.C. Department of Environment and Natural Resources

Mooresville Regional Office

Division of Environmental Health, Public Water Supply Section

N.C. Wildlife Resources Commission

5.1 U.S. Department of Health and Human Services, U.S. Public Health Service, letter dated 22 June 2004

PHS1. Comment: We have reviewed this document for potential adverse health and safety effects on human populations. Overall, we agree that the proposed project will have very beneficial and positive effects. All of the project improvements outlined are certainly needed to provide adequate sewage disposal to Norwood.

Response: Noted.

PHS2. Comment: We believe that there are some additional potential public health and safety concerns that must be addressed before a final determination is issued. We believe that the EA can be amended to include these issues and do not believe a Draft Environmental Impact Statement is required.

It is unclear what environmental compliance inspection procedures would be followed during construction. In similar projects, experienced Environmental Inspectors are assigned to monitor construction activities and ensure that all construction activities are

in compliance with applicable federal, state, and local environmental permits and approvals. Please clarify how environmental inspections and construction monitoring will be accomplished.

Response: Implementation of specific environmental protection measures during the pump station and force main replacement construction will be a contract requirement. All project construction activities shall use management measures to control solid and liquid waste, siltation and sedimentation, and pollutants in any form. The work shall be conducted in accordance with an Environmental Protection Plan prepared by the contractor and submitted to and approved by the U.S. Army Corps of Engineers, Wilmington District prior to commencing construction activities. The purpose of the Environmental Protection Plan is to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. The Environmental Protection Plan will address topics at a level of detail commensurate with the environmental risks and the construction task(s). The Environmental Protection Plan shall be current and maintained onsite by the Contractor.

The plan will include but not be limited to the following:

• Personnel Responsible for Environmental Protection

Identifies names and qualifications of person(s) within the contractor's organization responsible for ensuring adherence to the Environmental Protection Plan

- Description Environmental Training Program
 - Provides a brief overview of planned environmental training program
- Work Area Plan

Provides a plan showing proposed activities in each portion of the project site and identifying the areas of limited use or nonuse. The plan shall include measures for marking areas or measures for protection of features

Location Plans for Temporary Activities and Facilities

Drawings provided to show locations of any proposed temporary modifications of the project site or adjacent areas including temporary access pathways, excavations, embankments, structures, material storage areas, sanitary facilities, and stockpiles of materials of any kind

- Non-Hazardous Solid Waste Disposal Plan
 - Provides a description and location of solid waste disposal areas
- Erosion and Sedimentation Control Plan

Plan for erosion and sedimentation control in accordance with Federal, State, and local laws and regulations in effect at the time of construction

Spill Control Plan

Provides procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by Federal, State, or local laws or regulations

Recycling and Waste Minimization Plan

Details actions to comply with and to participate in Federal, State, regional, and local government sponsored recycling programs to reduce the volume of solid waste at the source

Air Pollution Control Plan

Details provisions to assure that dust, debris, materials, trash, etc. do not become airborne and travel off project site

Contaminant Prevention Plan

Identifies potentially hazardous substances to be used on the job site; identifies the intended actions to prevent introduction of such materials into the air, water, or ground;

and details provisions for compliance with Federal, State, and local laws and regulations for storage and handling of these materials

Traffic Control Plan

Measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. Plan shall include measures to minimize the amount of mud transported onto paved public roads by vehicles or runoff

Pesticide Treatment Plan

The plan shall include: sequence of treatment, dates, times, locations, pesticide trade name, EPA registration numbers, authorized uses, chemical composition, formulation, original and applied concentration, application rates of active ingredient (i.e. pounds of active ingredient applied), equipment used for application and calibration of equipment.

Waste Water Management Plan

Identifies methods and procedures for management and/or discharge of waste waters directly derived from construction activities

 Historical, Archaeological, Cultural Resources, Biological Resources and Wetlands Plan

Defines procedures for identifying and protecting these resources if present in the area

The Environmental Protection Plan shall be current and maintained onsite. During construction, additional Environmental Protection Plan Requirements may be identified and implemented.

Obtaining quality construction for the project including environmental protection is a combined responsibility of the construction contractor and the government (US Army Corps of Engineers -USACE). Their mutual goal will be a quality product conforming to the contract requirements. The USACE is responsible for assuring the contract documents clearly define the quality of materials and workmanship required for a project and that construction contractors comply with the contract documents and produce the required product. Contractor Quality Control (CQC) - is the construction contractor's system to manage, control and document his/her own, his/her supplier's, and his/her subcontractor's activities to comply with contract requirements. Quality Assurance (QA) - is the system by which the government (USACE) fulfills its responsibility to be certain the CQC is functioning and the specified end product is realized. Department of the Army, Engineering Regulation (ER) 1180-1-6, Contracts Construction Quality Management, dated September 30, 1995, provides the general policy and guidance for the quality management procedures in the execution of construction contracts and will be applicable to this project.

PHS3. Comment: We believe that spill potential during construction should have been addressed. A Spill Prevention and Control Plan should be considered. The plan should include, but not limited to: precautionary measures to prevent spills; sources of spills, such as equipment failure or malfunction; standard operating procedures in case of a spill; and appropriate training for all construction personnel. We did note that all construction activities would comply with Occupational Safety and Health Administration standards.

Response: The EA is an evaluation of significant environmental impacts of the proposed action. Federal agencies are required to consider environmental impacts as

a part of the planning and decision-making. The EA leads to a decision of whether or not an environmental impact statement needs to be prepared. Construction impacts were considered in the EA; however, spills were not specifically singled out for discussion. We do not believe that revision of the EA is necessary.

The project construction plans and specifications, which are in preparation, require the contractor to prepare a Spill Control Plan as a part of the Environmental Protection Plan previously discussed. The Spill Control Plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by 40 CFR 68, 40 CFR 355, and/or regulated under State or local laws or regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:

- 1. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer in addition to the legally required federal, state, and local reporting channels (including the National Response Center at 1-800-424-8802) if a reportable quantity is released to the environment. The plan shall contain a list of the required reporting channels and telephone numbers, and shall include notification of any spills of fuel to the North Carolina Department of Environment and Natural Resources.
- 2. The name and qualifications of the individual who will be **responsible for** implementing and supervising the containment and cleanup.
- 3. Training requirements for the Contractor's personnel and methods of accomplishing the training.
- 4. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.
- 5. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.
- 6. The methods and procedures to be used for expeditious contaminant cleanup.

PHS3. Comment: Thank you for the opportunity to review this EA. We would appreciate receiving a copy of the FONSI when it becomes available...

Response: Noted. A copy of the FONSI will be provided.

5.2 U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS), letter dated 23 June 2004

NRCS1 Comment: The NRCS does not have any comments at this time.

Response: Noted.

5.3 NC Department of Administration, State Clearinghouse, letter dated 28 June 2004

Letter transmits intergovernmental review comments from the following state agencies:

NC Department of Cultural Resources

NC Department of Environment and Natural Resources

NC Wildlife Resources Commission

NC Department of Environment and Natural Resources, Mooresville Regional Office

NC Department of Environment and Natural Resources, Division of Environmental Health, Public Water Supply Section.

Comments from these State agencies are addressed individually.

5.4 NC Department of Cultural Resources, Intergovernmental Review memorandum dated 21 June 2004

NCDCR1: Comment: No comment.

Response: Noted.

5.5 NC Department of Cultural Resources, Intergovernmental Review, letter dated 24 June 2004

NCDCR1: Comment: We have reviewed the Finding of No Significant Impact (FONSI) and believe that it adequately addresses our concerns for historic resources. The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 as codified at 36 CFR Part 800.

Response: Noted.

5.6 NC Department of Environment and Natural Resources, memorandum from Environmental Review Coordinator, dated 17 June 2004

NCDENR1 Comment: The NC Department of Environment and Natural Resources has reviewed the subject proposal. The department asks that careful consideration be given to the attached comments. By the comments raised, the application did not contain enough environmental specifications to allow full evaluation of the project.

Please work directly with NC Wildlife Resources Commission prior to finalizing project plans and circulating the FONSI.

Response: Careful consideration has been given to all EA comments. The NC Wildlife Resources Commission comments are addressed in a following paragraph.

5.7 NC Department of Environment and Natural Resources, memorandum from Mooresville Regional Office, dated 18 June 2004

NCDENR MRO1 Comment: Checklist of DENR permits and/or approvals that may need to be obtained in order for the project to comply with North Carolina law. The following items were checked:

Permit to construct and operate wastewater treatment facilities, sewer system extensions and sewer systems not discharging into state surface waters.

Sedimentation Pollution Control Act – An Erosion and Sedimentation Control Plan will be required if one or more acres is disturbed.

Response: Noted. Appropriate permits and approvals will be obtained.

NCDENR MRO2 Comment: Air Quality, Groundwater, Water Quality, and Land Quality Sections indicated no additional comments.

5.8 NC Department of Environment and Natural Resources, Division of Environmental Health, Public Water Supply Section, Mooresville Regional Office, dated 8 June 2004

NCDENR PWSSO1 Comment: Must maintain lateral and vertical separation distances between water and sewer mains as required in the rules governing public water systems.

Response: Noted. The appropriate separation distances will be maintained.

NCDENR PWSSO2 Comment: If existing water lines will be relocated during construction, plans for the water line relocation must be submitted to the Division of Environmental Health, Public Water Supply Section.

Response: Noted.

5.9 NC Wildlife Resources Commission, memorandum dated 14 June 2004

NCWRC01 Comment: Cedar Creek and its tributaries are located within the project boundaries. Cedar Creek is a tributary to Lake Tillery in the Yadkin-Pee Dee River basin. Although there are no records of federal or state listed species in Cedar Creek, there are records for the state threatened Carolina fatmucket (Lampsilts radfara

conspicua) and the state significantly rare coachwhip (Masticophls flagellum) near the project area.

Response: No project activities will impact Cedar Creek. The contract documents will emphasize avoidance of the creek as a contract requirement.

NCWRC02 Comment: We have concerns regarding the direct, secondary, and cumulative impacts of this project. The project has the potential to directly impact fish and wildlife resources. Direct impacts due to construction include erosion and sedimentation, and wetland and stream impacts. We are pleased to see that the applicant proposes to install the force main within existing roadway or utility easements and that a diesel fueled emergency generator will be installed. This will minimize direct impacts from the project.

Response: The direct impacts are discussed in the EA and, as indicated, are expected to be minor due to the **project** design.

NCWRC03 Comment: This project will provide service to existing users and will include several proposal flow additions. However, it is unclear whether the proposed flow additions are a result of existing development (e.g., retirement of septic systems) or new development. If the proposed project is designed to support new development, secondary impacts have the potential to be more significant than direct impacts.

Response: The project is designed to meet 20-year usage projections for Norwood.

Wastewater infrastructure limitations are likely a factor affecting future growth and development of the Norwood area as they are in any small municipality. The current wastewater deficiency would be addressed by the proposed project. Impacts attributed to potential future development in the project area may be a cumulative impact of the proposed wastewater infrastructure improvements. One limitation to the Norwood area's future growth and development would be changed, however, other growth factors may not change. Future projects would be subject to local, State and Federal environmental laws, regulations, and ordinances. To expect no change or growth in the community is not a reasonable expectation. With respect to growth, U.S. Census Bureau data indicates that the population of Stanly County increased 12.2 percent between 1990 and 2000. The State of North Carolina changed 21.4 percent over the same period. Population projections for the year 2020 for Stanly County by the North Carolina Office of Budget estimate similar, moderate growth. The proposed action is not expected to have significant adverse secondary or cumulative impacts.

NCWRC04 Comment: Although we are supportive of removing wastewater deficiencies, we have concerns regarding the secondary and cumulative impacts from development facilitated by the project. If the proposal project will support significant new development, then we anticipate that secondary and cumulative impacts of development, including impacts from increasing numbers of bridges and culverts and numbers of wastewater spills, will result in stream bank instability and other stream

morphology changes, increased sediment loading, changes in substrate characteristics, modified aquatic food resources, changed stream temperatures, increased nutrient loading, increased toxicant loading, changed fish communities, and reduced complexity of benthic habitats. Secondary development that follows infrastructure projects causes the loss, degradation, and fragmentation of terrestrial habitats as well.

We feel the discussion of secondary impacts was incomplete. Therefore, we are, unable to complete our review of the project due to the following additional information needs surrounding, the issues of secondary Impacts.

- A map of the service area that shows current and proposed new additions to the pump station. Also, for proposed new additions, whether these are existing facilities or proposed now facilities.
- Discussion of local ordinances that address secondary and cumulative impacts, in particular, ordinances that address riparian or stream buffers, floodplain development and stormwater control.

The project has the potential to result in secondary and cumulative impacts. We encourage the local governments to consider integrating measures to address issues of development and its impact on water quality and fish and wildlife habitat into their programs as described in our scoping comments (Bryant, 3 May 2004). These and other measures to mitigate secondary and cumulative impacts can be found in the NCWRC Guidance Memorandum to Address and Mitigate Secondary and Cumulative Impacts to Aquatic and Terrestrial Wildlife Resources and Water Quality.

Response: The new pump station will be constructed over the existing wet well. A new concrete pad will be installed for the diesel-fueled generator.

See the response to the previous NCWRC comment regarding secondary and cumulative impacts. While inappropriate or unplanned development can contribute to impacts such as those listed, it is not a given that infrastructure improvements such as that proposed with the Norwood pump station and force main replacement will cause such impacts. Future projects would be subject to local, State and Federal environmental laws, regulations, and ordinances. The Town of Norwood will be made aware of the referenced NCWRC Guidance Memorandum for their consideration.

6.0 POINT OF CONTACT

Any comments or questions regarding this EA/FONSI should be addressed to Mr. Philip Payonk, Environmental Resources Section, U.S. Army Corps of Engineers, Post Office Box 1890, Wilmington, North Carolina 28402-1890, telephone (910) 251-4589.

7.0 FINDING

The Proposed Action is not expected to significantly affect the quality of the human environment; therefore, an Environmental Impact Statement would not be prepared.

Date 7/13/ay

Charles R. Alexander, Jr. Colonel, U.S. Army

District Engineer

8.0 REFERENCES

Board of County Commissioners of Stanly County. 2004. Zoning Ordinance of Stanly County, North Carolina. Ordinance No. 73-2. Last updated March 9, 2004.

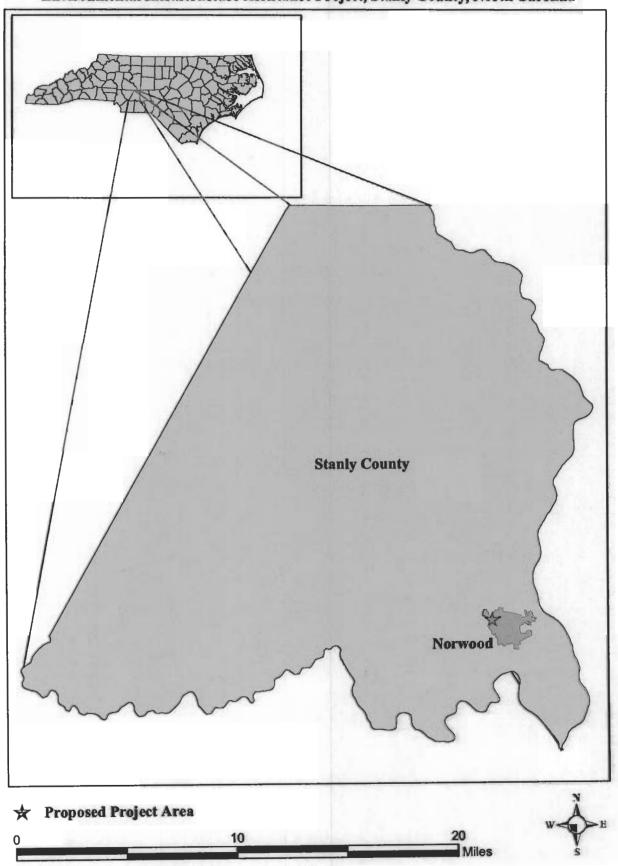
Butler, J. Robert and Donald T. Secor, Jr. 1991. *The Central Piedmont* in The Geology of the Carolinas, Carolina Geological Society Fiftieth Anniversary Volume. J. Wright Horton, Jr. and Victor A. Zullo eds.

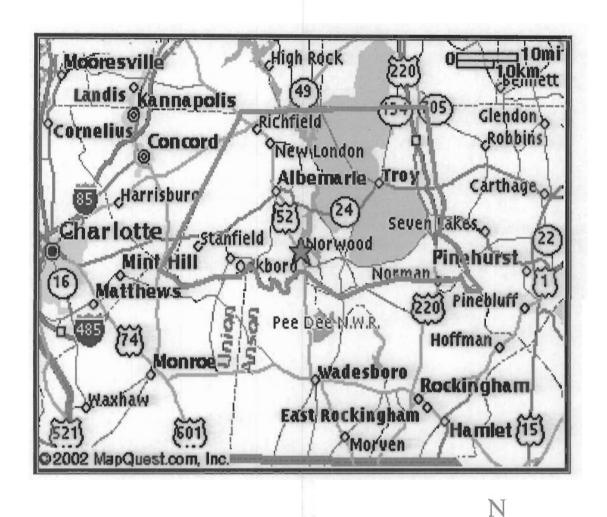
Stephens, R. B. 1989. Soil Survey of Stanly County, North Carolina. United States Department of Agriculture, Soil Conservation Service.

- U.S. Fish and Wildlife Service (USFWS). 1994. Schweinitz's Sunflower Recovery Plan. Atlanta, GA. 28 pp.
- U. S. Fish and Wildlife Service. 2002. Candidate and Listing Priority Assignment Form for Georgia Aster (Aster georgianus), updated March 2002.
- U. S. Fish and Wildlife Service. 2003. Threatened and Endangered Species in North Carolina, retrieved April 9, 2004 from URL http://nc-es.fws.gov/es/countyfr.html

Figure 1.

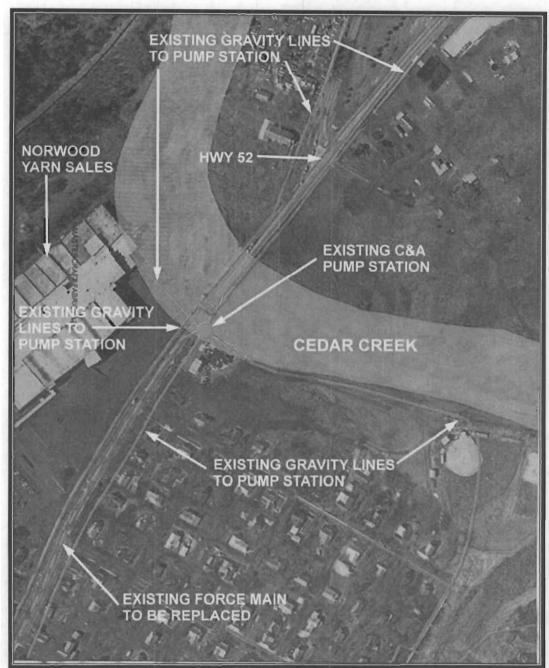
Environmental Infrastructure Assistance Project, Stanly County, North Carolina





STANLY COUNTY, NC

Environmental Infrastructure Assistance Project, Stanly County, North Carolina Figure 2



STANLY COUNTY, CITY OF NORWOOD, NC EXISTING PUMP STATION SITE PLAN NOT TO SCALE

Environmental Infrastructure Assistance Project, Stanly County, North Carolina Figure 3

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Figure 3a. Photographs of existing C&A Pump Station. View above is from across HWY 52. View below is towards HWY 52. Cedar Creek is on the left above and right below. Force main would extend to down HWY 52 away from Cedar Creek (see Figure 5). Proposed action would replace the building with a 15' x15' building.

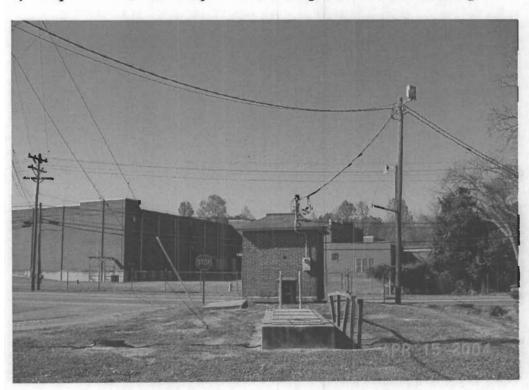
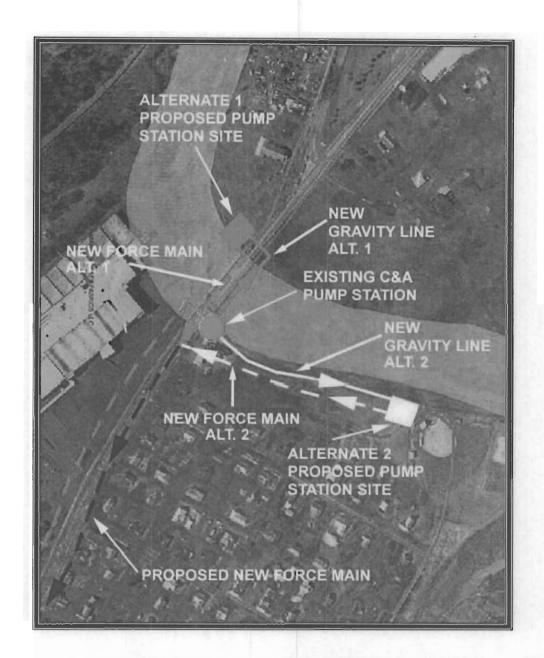




Figure 3b. Photograph of a portion of force main route. View is from end of Railroad Street and Whitley looking NW. New 6-inch force main would be installed alongside the existing 4-inch force main.

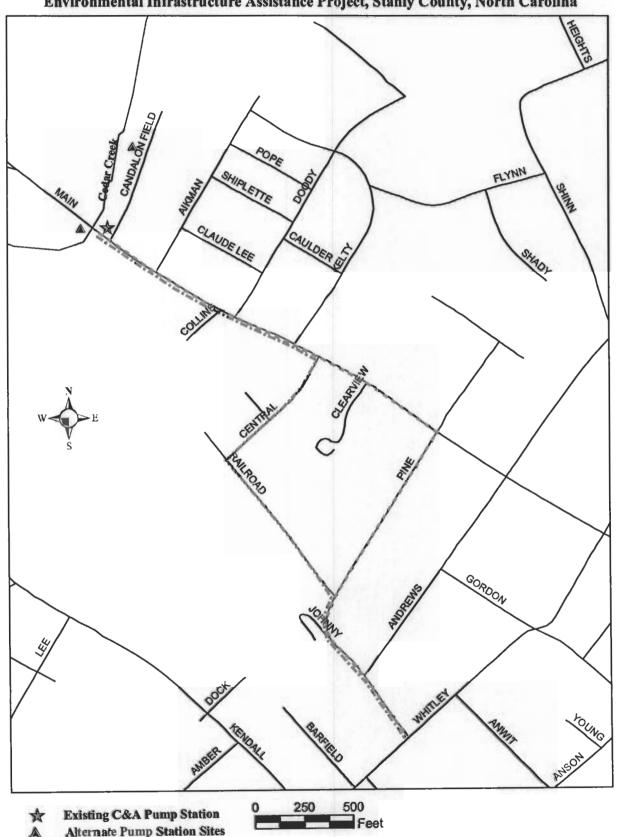


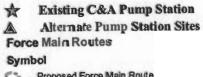
STANLY COUNTY, CITY OF NORWOOD, NC NEW PUMP STATION SITE PLAN NOT TO SCALE

Environmental Infrastructure Assistance Project, Stanly County, North Carolina Figure 4



Figure 5. Environmental Infrastructure Assistance Project, Stanly County, North Carolina





Proposed Force Main Route

Alternate Force Main Route

Figure 6.
Environmental Infrastructure Assistance Project, Stanly County, North Carolina

